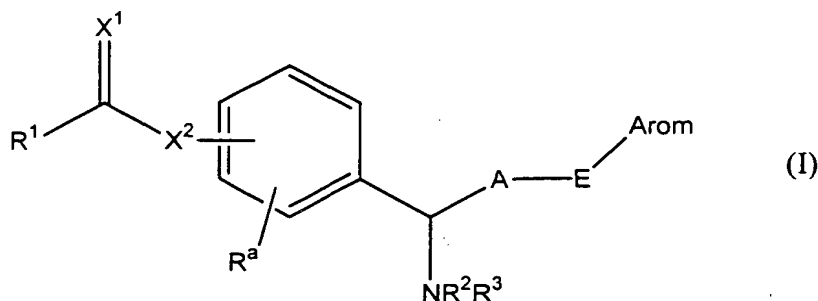


WHAT IS CLAIMED IS:

1. A compound of formula (I):



[wherein R^1 represents a C_1 - C_6 alkyl group, an amino group, a (C_1 - C_6 alkyl)amino group, a di(C_1 - C_6 alkyl)amino group or a nitrogen-containing saturated heterocyclic group;

R^2 and R^3 are the same or different and represent a hydrogen atom or a C_1 - C_6 alkyl group;

Arom represents an aryl group, an aryl group substituted at from 1 to 5 positions by substituent(s) which are the same or different selected from the substituent group α , a heteroaryl group, or a heteroaryl group substituted at from 1 to 3 positions by substituent(s) which are the same or different selected from the substituent group α ;

A represents a C_1 - C_6 alkylene group;

R^a represents a hydrogen atom, a C_1 - C_6 alkyl group or a C_2 - C_6 alkenyl group or, together with R^2 , represents a C_1 - C_3 alkylene group (in the case of C_2 - C_3 , it may contain a double bond);

E represents a single bond, an oxygen atom, a sulfur atom or a group of the formula: $-NR^4-$ (wherein R^4 represents a hydrogen atom or a C_1 - C_7 alkanoyl group);

X^1 and X^2 are the same or different and represent an oxygen atom or a sulfur atom]
or a pharmacologically acceptable salt or ester thereof.

<Substituent group α >

halogen atom, C_1 - C_6 alkyl group, halogeno C_1 - C_6 alkyl group, C_1 - C_6 alkoxy group, C_1 - C_6 alkylthio group, C_1 - C_3 alkylendioxy

group, C₁-C₇ alkanoyl group, C₂-C₇ alkyloxycarbonyl group, amino group, C₁-C₇ alkanoylamino group, hydroxyl group, mercapto group, cyano group, nitro group and carboxyl group.

2. A compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the group of formula: R¹-C(=X¹)- is a carbamoyl group, a (C₁-C₄ alkyl)carbamoyl group, a di(C₁-C₄ alkyl)carbamoyl group, a thiocarbamoyl group, a (C₁-C₄ alkyl)thiocarbamoyl group or a di(C₁-C₄ alkyl)thiocarbamoyl group.

3. A compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the group of formula: R¹-C(=X¹)- is a (C₁-C₄ alkyl)carbamoyl group, a di(C₁-C₄ alkyl)carbamoyl group, a (C₁-C₄ alkyl)thiocarbamoyl group or a di(C₁-C₄ alkyl)thiocarbamoyl group.

4. A compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the group of formula: R¹-C(=X¹)- is a (C₁-C₄ alkyl)carbamoyl group or a di(C₁-C₄ alkyl)carbamoyl group.

5. A compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the group of formula: R¹-C(=X¹)- is a di(C₁-C₄ alkyl)carbamoyl group.

6. A compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the group of formula: R¹-C(=X¹)- is a dimethylcarbamoyl group or an ethylmethylcarbamoyl group.

7. A compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the group of formula: R¹-C(=X¹)- is a dimethylcarbamoyl group,

8. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 7, wherein R³ is a

C₁-C₆ alkyl group.

9. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 7, wherein R³ is a methyl group or an ethyl group.

10. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 7, wherein R³ is a methyl group.

11. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 10, wherein R² is a hydrogen atom or a C₁-C₆ alkyl group.

12. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 10, wherein R² is a hydrogen atom, a methyl group or an ethyl group.

13. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 10, wherein R² is a hydrogen atom or a methyl group.

14. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 10, wherein R^a, together with R², is a C₁-C₃ alkylene group which may contain a double bond.

15. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 10, wherein R^a, together with R², is a C₂-C₃ alkylene group which may contain a double bond.

16. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 10, wherein R^a, together with R², is a C₃ alkylene group which contains a double bond.

17. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 13, wherein R^a is a hydrogen atom or a methyl group.

18. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 13, wherein R^a is a hydrogen atom.

19. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group, a phenyl group substituted at from 1 to 3 positions by substituent(s) which may be the same or different selected from the substituent group α , a pyridyl group, or a pyridyl group substituted at one position by a substituent selected from the substituent group α ;

<Substituent group α >

halogen atom, C₁-C₆ alkyl group, halogeno C₁-C₆ alkyl group, C₁-C₆ alkoxy group, C₁-C₆ alkylthio group, C₁-C₃ alkylenedioxy group, C₁-C₇ alkanoyl group, C₂-C₇ alkyloxycarbonyl group, amino group, C₁-C₇ alkanoylamino group, hydroxyl group, mercapto group, cyano group, nitro group and carboxyl group.

20. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group or a phenyl group substituted at from 1 to 3 positions by substituent(s) which may be the same or different selected from the substituent group α ;

<Substituent group α >

halogen atom, C₁-C₆ alkyl group, halogeno C₁-C₆ alkyl group, C₁-C₆ alkoxy group, C₁-C₆ alkylthio group, C₁-C₃ alkylenedioxy group, C₁-C₇ alkanoyl group, C₂-C₇ alkyloxycarbonyl group, amino group, C₁-C₇ alkanoylamino group, hydroxyl group, mercapto group, cyano group, nitro group and carboxyl group.

21. A compound or pharmacologically acceptable salt thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group substituted at one or two positions by

substituent(s) which may be the same or different selected from the substituent group $\alpha 1$, or a phenyl group substituted at three positions by halogen atoms;

<Substituent group $\alpha 1$ >

halogen atom, C_1 - C_4 alkyl group, C_1 - C_4 alkyl group substituted by from 1 to 3 fluorine atoms, C_1 - C_4 alkoxy group, C_1 - C_4 alkylthio group, methylenedioxy group, ethylenedioxy group, C_1 - C_4 alkanoyl group, cyano group and nitro group.

22. A compound or pharmacologically acceptable salt thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group substituted at one or two positions by substituent(s) which may be the same or different selected from the substituent group $\alpha 2$, or a phenyl group substituted at three positions by fluorine atoms or chlorine atoms;

<Substituent group $\alpha 2$ >

fluorine atom, chlorine atom, methyl group, trifluoromethyl group, methoxy group, methylthio group, acetyl group, cyano group and nitro group.

23. A compound or pharmacologically acceptable salt thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group substituted at one or two positions by substituent(s) which may be the same or different selected from the substituent group $\alpha 3$, or a phenyl group substituted at three positions by fluorine atoms;

<Substituent group $\alpha 3$ >

fluorine atom, chlorine atom, methylthio group, acetyl group, cyano group and nitro group.

24. A compound or pharmacologically acceptable salt thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group substituted at one or two positions by substituent(s) which may be the same or different selected from the substituent group $\alpha 4$, or a phenyl group substituted at three positions by fluorine atoms;

<Substituent group α_4 >

fluorine atom, chlorine atom, methylthio group and nitro group.

25. A compound or pharmacologically acceptable salt thereof according to any one of Claims 1 to 18, wherein Arom is a phenyl group substituted at one position by a fluorine atom, a chlorine atom or a nitro group, or a phenyl group substituted at two positions by fluorine atoms.

26. A compound or pharmacologically acceptable salt thereof according to any one of Claims 1 to 18, wherein Arom is a 4-fluorophenyl group, a 4-chlorophenyl group, a 4-nitrophenyl group or a 3,4-difluorophenyl group.

27. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 26, wherein A is a C_1 - C_4 alkylene group.

28. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 26, wherein A is a methylene group or an ethylene group.

29. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 26, wherein A is an ethylene group.

30. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 29, wherein E is an oxygen atom or a single bond.

31. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 29, wherein E is an oxygen atom.

32. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 31, wherein X^2 is an oxygen atom.

33. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 32, wherein the group of formula: $R^1-C(=X^1)-X^2-$ is attached at the para-position.

34. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 32, wherein R^1 is an amino group, a $(C_1-C_6 \text{ alkyl})$ amino group or a $di(C_1-C_6 \text{ alkyl})$ amino group.

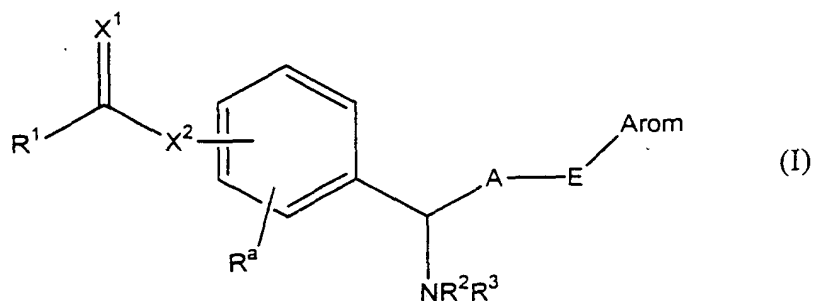
35. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 32, wherein R^1 is an amino group, a $(C_1-C_4 \text{ alkyl})$ amino group or a $di(C_1-C_4 \text{ alkyl})$ amino group.

36. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 32, wherein R^1 is a $(C_1-C_4 \text{ alkyl})$ amino group or a $di(C_1-C_4 \text{ alkyl})$ amino group.

37. A compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 32, wherein X^1 is an oxygen atom.

38. The compound or pharmacologically acceptable salt or ester thereof according to Claim 1, wherein the compound is 4-[3-(4-nitrophenoxy)-1-methylaminopropyl]phenyl dimethcarbamate.

39. A compound of the formula (I):



wherein R^1 represents a C_1 - C_6 alkyl group, an amino group, a (C_1 - C_6 alkyl)amino group, a di(C_1 - C_6 alkyl)amino group or a nitrogen-containing saturated heterocyclic group;

R^2 and R^3 are the same or different and represent a hydrogen atom or a C_1 - C_6 alkyl group;

Arom represents an unsubstituted aryl group, an aryl group substituted at from 1 to 3 positions by substituents, which are the same or different and are from a substituent group α ; an unsubstituted heteroaryl group, or a heteroaryl group substituted at from 1 to 3 positions by substituent(s) which are the same or different and are from a substituent group α ;

A represents a C_1 - C_6 alkylene group;

E represents a single bond, an oxygen atom, a sulfur atom or a group of the formula $-NR^4$ -, wherein R^4 represents a hydrogen atom or a C_1 - C_7 alkanoyl group;

X^1 and X^2 are the same or different and represent an oxygen atom or a sulfur atom;

the substituent group α being selected from the group consisting of a halogen atom, C_1 - C_6 alkyl group, halogeno C_1 - C_6 alkyl group, C_1 - C_6 alkoxy group, C_1 - C_6 alkylthio group, C_1 - C_3 alkylenedioxy group, C_1 - C_7 alkanoyl group, C_2 - C_7 alkyloxycarbonyl group, amino group, C_1 - C_7 alkanoylamino group, hydroxyl group, mercapto group, cyano group, nitro group and carboxyl group;

or a pharmacologically acceptable salt or ester thereof.

40. A pharmaceutical composition containing a pharmaceutically effective amount of a compound or pharmacologically acceptable salt or ester thereof according to any one of

Claims 1 to 39 in combination with a pharmaceutically acceptable carrier.

41. A method for inhibiting acetylcholinesterase and selective serotonin reuptake in a human comprising administering to said human a pharmaceutically effective amount of a compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 39.

42. A method for treating or preventing Alzheimer's disease, depression, Huntington's chorea, Pick's disease, tardive dyskinesia, compulsive disorders or panic disorders in a human comprising administering to said human a pharmaceutically effective amount of a compound or pharmacologically acceptable salt or ester thereof according to any one of Claims 1 to 39.

43. The method according to Claim 42, wherein the method is for treating or preventing Alzheimer's disease.

44. A method for inhibiting acetylcholinesterase and selective serotonin reuptake in a mammal comprising administering to a mammal a pharmaceutically effective amount of a compound or a pharmaceutically acceptable salt or ester thereof according to Claim 1.

45. A method for treating or preventing Alzheimer's disease, depression, Huntington's chorea, Pick's disease, tardive dyskinesia, compulsive disorders or panic disorders in a mammal comprising administering to a mammal a pharmaceutically

effective amount of a compound or a pharmacologically acceptable salt or ester thereof according to Claim 1.